

MD. ZAIDUL ISLAM SARKER



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KELAYAKAN AKADEMIK

- Doctor of Philosophy
- Master of Science in Food Analysis
- M.Sc in Biochemistry
- B.Sc (Honors) Biochemistry

TANGGUNGJAWAB MENGAJAR

DISPERSE SYSTEMS	2014/2015
MEDICAL BIOCHEMISTRY	2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018
NATURAL MEDICINAL PRODUCT	2013/2014 2015/2016
NUTRACEUTICAL	2016/2017 2017/2018 2018/2019 2019/2020
PHARMACEUTICAL ANALYSIS I	2012/2013
PHARMACEUTICS I : PHYSICOCHEMICAL PRINCIPLES	2019/2020
PHARMACEUTICS II : DISPERSE SYSTEMS	2020/2021
PHYSICAL PHARMACY 1	2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019
PHYSICAL PHARMACY II	2013/2014 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
RESEARCH METHODOLOGY & BIostatISTICS	2011/2012
RESEARCH PROJECT 1	2013/2014 2015/2016 2016/2017 2017/2018
RESEARCH PROJECT-LITERATURE SEARCH	2012/2013 2016/2017 2018/2019

PROJEK PENYELIDIKAN

In Progress

- 2019 - Present** Probing the cellular and molecular mechanisms of skin barrier repair in atopic dermatitis by Benincasa hispida seed extract

2019 - Present Extraction and identification of bioactive compounds from *Cassia angustifolia* using conventional and non-conventional methods.

2019 - Present Investigation of the pharmacokinetic interaction of sulfonylurea and calcium channel blocker in diabetic and hypertensive rats

2018 - Present SEPARATION AND IDENTIFICATION OF BIOACTIVE COMPOUNDS FROM *ANISOPHYLLEA DISTICHA* USING SUPERCRITICAL FLUID METHOD

2018 - Present Identification of α -Glucosidase Inhibitors from *Psychotria malayana* Leaf Extract using Liquid Chromatography-Mass Spectrometry-Based Metabolomics and Protein-Ligand Interaction with Molecular Docking

2018 - Present SEPARATION AND IDENTIFICATION OF BIOACTIVE COMPOUNDS FROM *ANISOPHYLLEA DISTICHA* USING SUPERCRITICAL FLUID METHOD

2018 - Present Mechanism of amide coupling interaction for eliminating organic solvent from generic pharmaceuticals with supercritical CO₂.

2017 - Present Analytical and Biological Activity Analysis of Malaysian leeches Saliva Extract of Both Green and Brown Types

2016 - Present Influence of multiple reaction monitoring (MRM) on the separation of amlodipine and perindopril in pharmaceutical dosage form and plasma

2016 - Present Isolation and characterization of Potential α -glucosidase inhibitors from *Clinacanthus Nutans*

2015 - Present Upscaling the Production of Novel Fucoxanthin from Malaysian Brown Algae for food and Pharmaceutical Applications

Unknown - Present Investigation of the pharmacokinetic interaction of sulfonylurea and calcium channel blocker in diabetic and hypertensive rats.

Unknown - Present Extraction and identification of bioactive compounds from *Cassia angustifolia* using conventional and non-conventional methods.

Unknown - Present Investigation of the pharmacokinetic interaction of sulfonylurea and calcium channel blocker in diabetic and hypertensive rats

Unknown - Present Extraction of fatty acids from leaves, stems and roots of *Raja Berangkat* plant using supercritical fluids.

Completed

2016 - 2018 *Stereospermum Fimbriatum* (Chicha) - Prospects of Antimicrobial Agent for Skin Infection

2016 - 2019 Influence of multiple reaction monitoring (MRM) on the separation of amlodipine and perindopril in pharmaceutical dosage form and plasma

2016 - 2018 Isolation and characterization of Potential α -glucosidase inhibitors from *Clinacanthus Nutans*

2016 - 2018 Species Diversity and Seasonal Distribution of Fishes and Water Quality in Tropical River, Pahang, Malaysia

- 2015 - 2017** Upscaling the Production of Novel Fucoxanthin from Malaysian Brown Algae for food and Pharmaceutical Applications
- 2015 - -1** The Visiting Professor Collaboration Program at King Saud University
- 2015 - 2015** The Visiting Professor Collaboration Program at King Saud University
- 2015 - 2017** Influence of Carbon Dioxide at Supercritical Phase Separating the Omega 3 Fish Oil from Sardine Wastes following Shariah Compliant
- 2015 - -1** Application of Supercritical Fluid in Food, Nutraceutical and Antioxidant
- 2014 - 2016** Influence of Co-Solvent in Solubility of Phalerin and Mahkoside-A from Mahkota dewa (*Phaleria macrocarpa*) with Carbon Dioxide as a Solvent
- 2014 - -1** Proposal Evaluation for National Centre for Science and Technology Evaluation, Kazakhstan
- 2014 - 2017** Enhancement of Drug Loading with Dry Surface Coated Active Ingredient in Direct Compression: An Approach to Prepare Tablet in a Time Saving Cost Effective Manner
- 2013 - 2015** Extraction of Fatty Acids From The *Phaleria Macrocarpa* Seeds Using Supercritical Carbon
- 2013 - -1** Extraction of Fatty Acids From The *Phaleria Macrocarpa* Seeds Using Supercritical Carbon
- 2013 - 2016** Continuous Micronization and Particle Formation of Malaysian Medicinal Extracts Using Different Supercritical Antisolvent Techniques
- 2013 - 2016** Production of Premium Grade Cocoa Butter Replacers Blends with Stearic and Pleic Acids and time Based Palm Kernel Oil Fractions of Continuous Supercritical Fluid Extraction Technique
- 2012 - 2014** Synthesis and Characterization of Insulin Loaded Poly (D, L-Lactide-co-glycolide)(PLGA) Based Magnetic Nanoparticles
- 2012 - 2014** Supercritical Fluid Extraction (SFE)of Bioactive Compounds from *Pereskia Bleo* using Various Technique
- 2012 - -1** Ultrapure Activated Carbon (charcoal) as an Adsorbent of Toxins from Human stomach
- 2012 - 2015** Ultrapure Activated Carbon (charcoal) as an Adsorbent of Toxins from Human stomach
- 2011 - 2013** (RU2011) Supercritical carbon dioxide extraction and fractionation of mango seeds and peel oils from mango wastes as cocoa butter replacers
- Unknown - 2019** Extraction of fatty acids from leaves, stems and roots of Raja Berangkat plant using supercritical fluids.

Article

- 2020 [Enrichment of antibacterial compound from the stem bark of *Stereospermum fimbriatum* using supercritical carbon dioxide extraction.](#) Separation Science and Technology (Philadelphia) , 55 (9) pp.1656-1666
- 2020 [Taste masking of paracetamol encapsulated in chitosan-coated alginate beads.](#) Journal of Drug Delivery Science and Technology , 56 (Part A) pp.1-10
- 2020 [Effect of processing methods on xylitol-starch base co-processed adjuvant for orally disintegrating tablet application.](#) Pakistan Journal of Pharmaceutical Sciences , 33 (2) pp.551-559
- 2020 [Comparison of disintegrant-addition methods on the compounding of orodispersible tablets.](#) International Journal of Pharmaceutical Compounding , 24 (2) pp.148-155
- 2020 [Comparison of disintegrant-addition methods on the compounding of orodispersible tablets.](#) International Journal of Pharmaceutical Compounding , 24 (2) pp.148-155
- 2020 [Supercritical fluid technology and its pharmaceutical applications: a revisit with two decades of progress.](#) Indian Journal of Pharmaceutical Education and Research , 54 (2 (April-June)) pp.s1-s11
- 2020 [Isolation and characterization of novel antibacterial compound from an untapped plant, *Stereospermum fimbriatum*.](#) Natural Product Research , 34 (5) pp.629-637
- 2020 [Dataset on applying HPMC polymer to improve encapsulation efficiency and stability of the fish oil: In vitro evaluation.](#) Data in Brief , 32
- 2020 [Functional and nutritional properties of rambutan \(*Nephelium lappaceum* L.\) seed and its industrial application: a review.](#) Trends in Food Science and Technology , 99 pp.367-374
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- 2020 [Formulation development of paracetamol instant jelly for pediatric use.](#) Drug Development and Industrial Pharmacy , 46 (8) pp.1373-1383
- 2020 [Investigation of filler effects on the compounding of freeze-dried orodispersible tablets containing *Annona muricata* extract.](#) International Journal of Pharmaceutical Compounding , 24 (6) pp.513-518
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- 2020 [Dataset on applying HPMC polymer to improve encapsulation efficiency and stability of the fish oil: in vitro evaluation.](#) Data in Brief , 32 pp.1-9
- 2020 [Effects of drying methods on oxidative stability of roselle seed oil \(*Hibiscus Sabdariffa*\): an optimization approach.](#) Journal of Food Science and Technology

- 2019** [Valuable components of bambangan fruit \(*Mangifera pajang*\) and its coproducts: A review.](#) Food Research International , 115 pp.105 -115
- 2019** [Biological activities and extraction technologies of Pheonix dactylifera: a review..](#) The Natural Products Journal , 9 (1) pp.3-13
- 2019** [Valuable components of bambangan fruit \(*Mangifera pajang*\) and its co-products: a review.](#) Food Research International , 115 pp.105 -115
- 2019** [Effective treatment of palm oil mill effluent using FeSO₄.7H₂O waste from titanium oxide industry: Coagulation adsorption isotherm and kinetics studies.](#) Journal of Cleaner Production , 219 pp.86-98
- 2019** [Thermal properties, triglycerides and crystal morphology of bambangan \(*Mangifera pajang*\) kernel fat and palm stearin blends as cocoa butter alternatives.](#) LWT , 107 pp.64-71
- 2019** [Effects of drying methods on the characteristics of rambutan \(*Nephelium lappaceum* L.\) seed fat: an optimisation approach.](#) Engineering Reports pp.1-12
- 2019** [Hard fats improve the physicochemical and thermal properties of seed fats for applications in confectionery products.](#) Food Reviews International
- 2019** [The superiorty of supercritical fluid extraction over steam distillation and solvent extraction methods for the extraction of aroma from *Salacca zalacca* \(Gaernt..\)Voss..](#) Oriental Journal of Chemistry , 35 (6) pp.1669-1677
- 2018** [Multiplex PCR to discriminate bovine, porcine, and fish DNA in gelatin and confectionery products.](#) LWT - Food Science and Technology , 92
- 2018** [In vitro evaluation of cuscuta reflexa roxb. for thrombolytic, antioxidant, membrane stabilizing and antimicrobial activities.](#) Natural Product Research
- 2018** [Bambangan \(*Mangifera pajang*\) kernel fat: a potential new source of cocoa butter alternativ.](#) International Journal of Food Science and Technology , 53 pp.1689-1697
- 2018** [Universal mini COI barcode for the identification of fish species in processed products.](#) Food Research International , 105 pp.19-28
- 2018** [Physicochemical properties of cocoa butter replacers from supercritical carbon dioxide extracted mango seed fat and palm oil mid-fraction blends.](#) International Food Research Journal , 25 (1) pp.143-149
- 2018** [Optimization of fat yield of bambangan \(*Mangifera pajang*\) kernel using response surface methodology and its antioxidant activities.](#) Journal of Food Measurement and Characterization , 12 (2) pp.1427-1438
- 2018** [Bambangan \(*Mangifera pajang*\) kernel fat: a potential new source of cocoa butter alternative.](#) International Journal of Food Science and Technology , 53 (7) pp.1689-1697
- 2018** [A clinical update on antibiotic resistance gram-negative bacteria in Malaysia-a review.](#) Journal of International Pharmaceutical Research , 45 pp.270-283
- 2018** [Enrichment, in vitro, and quantification study of antidiabetic compounds from neglected weed *Mimosa pudica* using supercritical CO₂ and CO₂-Soxhlet.](#) Separation Science and Technology , 53 (2) pp.243-260

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- 2018** [Effect of various food processing and handling methods on preservation of natural antioxidants in fruits and vegetables](#). Journal of Food Science and Technology , 55 (10) pp.3872-3880
- 2018** [Techniques for the extraction of phytosterols and their benefits in human health: a review](#). Separation Science and Technology , 53 (14) pp.2206-2223
- 2018** [Optimisation of squalene recovery from palm oil by-product using integrated ScCO₂-pressure swing](#). Journal of Oil Palm Research , 30 (4) pp.570-578
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- 2017** [Microencapsulation of fish oil using supercritical antisolvent process](#). Journal of food and drug analysis , 25 (3) pp.654 -666
- 2017** [Identification of bioactive compounds with GC-Q-TOF-MS in the extracts from *clinacanthus nutans* using subcritical carbon dioxide extraction](#). Separation Science and Technology , 52 (5) pp.852-863
- 2017** [Effect of medium-high energy emulsification condition on physicochemical properties of \$\beta\$ -sitosterol multiple emulsion](#). Food Bioprocess Technology , 10 (9) pp.1642-1654
- 2017** [Mimosa pudica L.: a comparative study via in vitro analysis and GC Q-TOF MS profiling on conventional and supercritical fluid extraction using food grade ethanol](#). Indian Journal of Natural Products and Resources , 8 (1) pp.54-62
- 2017** [\$\alpha\$ -glucosidase inhibitors isolated from *Mimosa pudica* L.](#). Natural Product Research , 33 (10) pp.1495-1499
- 2017** [Effect of accelerated storage on chemical compositions of mango seed fat and palm oil mid-fraction blends as cocoa butter replacers](#). LWT - Food Science and Technology , 84 pp.551-554
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- 2017** [Phytochemical composition, biological activities and processing method of genus *anisophyllea*: a review](#). The Natural Products Journal , 7 (3) pp.176-185
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- 2017** [Mimosa pudica L.: A comparative study via in vitro analysis and GC Q-TOF MS profiling on conventional and supercritical fluid extraction using food grade ethanol](#). Indian Journal of Natural Products and Resources (IJNPR) , 8 (1) pp.54-62

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- 2017** [In vitro antioxidant and, \$\alpha\$ -glucosidase inhibitory activities and comprehensive metabolite profiling of methanol extract and its fractions from Clinacanthus nutans.](#) BMC Complementary and Alternative Medicine , 17 (1) pp.1-10
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- 2016** [Extraction of omega 3 fatty acids from sardine byproducts using supercritical carbon dioxide \(SC-CO₂\).](#) The International Medical Journal of Malaysia , 15 pp.112-112
- 2016** [Optimisation of ultrasound-assisted extraction of pectinase enzyme from guava \(Psidium guajava\) peel: Enzyme recovery, specific activity, temperature and storage stability.](#) Preparative Biochemistry and Biotechnology , 46 (1) pp.91-99
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